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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/696,219	10/29/2003	Herbert H. Loeffler	1159.1009-007	5251
21005 7590 05/31/2007 HAMILTON, BROOK, SMITH & REYNOLDS, P.C. 530 VIRGINIA ROAD P.O. BOX 9133 CONCORD, MA 01742-9133			EXAMINER HYUN, PAUL SANG HWA	
			ART UNIT 1743	PAPER NUMBER
			MAIL DATE 05/31/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/696,219

Applicant(s)

LOEFFLER ET AL.

Examiner

Paul S. Hyun

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply, and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3,4,10-13 and 17-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 19-22 is/are allowed.
- 6) ☒ Claim(s) 1,3,4,10-13,17,18,23 and 24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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## DETAILED ACTION

### REMARKS

Claims 1, 3, 4, 10-13 and 17-24 are currently pending. Applicants amended claims 1, 13, 19 and 21-24.

The amended drawings submitted by Applicants have been acknowledged.

The claim objection and the claim rejection under 35 U.S.C. section 112 cited in the previous Office action have been withdrawn in light of the amendments.

Despite the amendments and Applicants' arguments, the art rejection of claims 1, 3, 4, 10-13, 17, 18, 23 and 24 are maintained.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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Claims **1, 3, 4, 10-13, 17, 18, 23 and 24** are rejected under 35 U.S.C. 103(a) as being unpatentable over Stapleton et al. (US 5,922,604) in view of Kath et al. (US 5,882,601).

Stapleton et al. disclose a device for conducting reactions (see Figs. 1-3). The device comprises a microscope slide 14 for supporting a sample, and a plurality of removable covers 12 clamped to the top surface of the microscope slide to form a plurality of reaction chambers 16 (see Fig. 4). Each cover comprises a conical reagent well 18 for receiving and holding fluid from a fluid delivery device, and a valve situated in port 20 of the reagent well (see lines 13-60, col. 13). The reference discloses that the valve may be either externally actuated or self-actuated (see line 14, col. 13).

The device disclosed by Stapleton et al. differs from the claimed invention in that the reference does not disclose the claimed valve and actuator.

Kath et al. disclose an automated fluid dispenser comprising an actuator for mating the dispenser with a reaction vessel comprising a port that is closed by a septum valve. Fluid is added to the reaction vessel by piercing the septum valve with a dispensing canula of the automated fluid dispenser (see lines 1-37, col. 1).

In light of the disclosure of Kath et al., it would have been obvious to one of ordinary skill in the art to provide a septum valve and an automated fluid dispenser comprising a canula to the device disclosed by Stapleton et al. The septum valve would provide a means for introducing fluid into the device without contamination.

With respect to claims 3, 4 and 17, although neither references explicitly disclose a second fluid port or a second conduit, it would have been obvious to one of ordinary

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skill in the art to provide a second port and a second conduit to the modified device disclosed by Stapleton et al. and Kath et al. so that a second fluid can be introduced into chamber 16 without being contaminated by the fluid that was introduced via the first port.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1, 3, 4, 10-13, 17, 18, 23 and 24 have been fully considered but they are not persuasive.

Applicants argue that the septum valve disclosed by Kath et al. does not constitute the claimed moveable valve. This argument is not persuasive because as shown in Figures 1A-1C of Kath et al., the septum valve 8 comprises a flexible membrane that deflects as the canula 12 of pipette 2 penetrates the septum valve. The Examiner maintains the position that the deflection exhibited by the septum valve as the pipette penetrates the valve encompasses the movement recited in the claims.

Applicants also argue that Kath et al. do not teach a member associated with a conduit that is capable of moving the moveable valve. As discussed above, the canula disclosed by Kath et al. deflects the flexible septum valve as it pierces it. The Examiner maintains the position that the deflection of the septum as the canula pierces the septum encompasses the movement recited in the claims.

### ***Allowable Subject Matter***

Claims 19-22 are allowed.

Stapleton et al. disclose a device for conducting reactions. The device comprises a microscope slide, and a removable cover clamped to the top surface of the

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microscope slide to form a reaction chamber. Each cover comprises a conical reagent well for receiving and holding fluid from a fluid delivery device, and a valve situated in port of the reagent well. However, Stapleton et al. do not disclose a conduit capable of moving relative to the fluid port and further comprising a piston that is configured to actuate the valve. There is also no motivation provided by Stapleton et al. or prior art to provide the device disclosed by Stapleton et al. with the claimed conduit.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul S. Hyun whose telephone number is (571)-272-8559. The examiner can normally be reached on Monday-Friday 8AM-4:30PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on (571)-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PSH  
5/23/07

  
Jill Warden  
Supervisory Patent Examiner  
Technology Center 1700